CLAIMS

1. A method of treatment for treating, preventing, inhibiting or reducing a biological or immunological response to a reactive chemical agent, biological agent or toxin, by tissue of a subject, comprising administering to a subject in need of such treatment an effective amount of a composition comprising a response-inhibiting agent comprising amino acid sequence LKKTET, a conservative variant thereof, or an agent that stimulates production of an LKKTET peptide, or a conservative variant thereof, in said tissue, so as to inhibit said response.

2. The method of claim 1 wherein said biological or immunological response comprises redness, induration, swelling, itching, rash, blisters, inflammation, arythema or a combination thereof.

3. The method of claim 1 wherein said response-inhibiting agent has an ability to down-regulate inflammatory cytokines, chemokines or a combination thereof, so as to result in biological or immunological response-inhibition in said tissue.

4. The method of claim 1 wherein said response-inhibiting agent is thymosin beta 4 (Tβ4).

5. The method of claim 1 wherein said response-inhibiting agent is other than Tβ4.

6. The method of claim 1 wherein said agent comprises amino acid sequence KLKKTET, amino acid sequence LKKTETQ, and N-terminal variant of Tβ4, a C-terminal variant of Tβ4, an isoform of Tβ4, oxidized Tβ4 or Tβ4 sulfoxide.

7. The method of claim 1 wherein said response-inhibiting agent directly or indirectly inhibits said response.

8. The method of claim 7 wherein said response-inhibiting agent indirectly inhibits said response, and said response-inhibiting agent stimulates production of an LKKTET peptide in tissue of said subject.

9. The method of claim 1 wherein said response-inhibiting agent is administered to said subject at a dosage within a range of about 1-25 micrograms.

10. The method of claim 1 wherein said response-inhibiting agent is administered by direct injection into said tissue, or by intravenous, intraperitoneal, intramuscular, subcutaneous, inhalation, transdermal or oral administration, to said subject.

11. The method of claim 1 wherein said composition is administered systemically.

12. The method of claim 1 wherein said composition is administered topically.

13. The method of claim 12 wherein said composition is in the form of a gel, creme, paste, lotion, spray, suspension, dispersion, salve, hydrogel or ointment formulation.

14. The method of claim 1 wherein said agent is a recombinant or synthetic peptide.

15. The method of claim 1 wherein said agent is an antibody.

16. The method of claim 7 wherein said antibody is polyclonal or monoclonal.

17. A method of treatment for treating, preventing, inhibiting or reducing a biological or immunological response to a reactive chemical agent, biological agent or toxin, by tissue of a subject, comprising administering to a subject in need of such treatment an effective amount of a composition comprising a stimulating agent that stimulates production of a biological or immunological response-inhibiting polypeptide comprising amino acid sequence LKKTET, or a conservative variant thereof, having biological or immunological response-inhibiting activity.

18. The method of claim 17 wherein said polypeptide is Thymosin beta 4.

19. The method of claim 17 wherein said agent is an antagonist of Thymosin beta 4.

20. The method of claim 1, wherein said tissue is a surface tissue selected from skin or a mucous membrane of said subject, pulmonary tissue of said subject or gastrointestinal tissue of said subject.

21. The method of claim 17, wherein said tissue comprises a surface tissue selected from skin or a mucous membrane of said subject, pulmonary tissue of said subject or gastrointestinal tissue of said subject.

22. A method of screening for a biological or immunological response-inhibiting agent, comprising contacting tissue exhibiting a biological or immunological response, with a candidate compound; and measuring a level of reduction of the biological or immunological response in said tissue, wherein a reduction of said level compared to a level in a corresponding tissue lacking said candidate compound, indicates that said candidate compound is capable of treating, preventing, inhibiting or reducing said biological or immunological response.

23. A method of screening for a biological or immunological response-inhibiting agent, comprising contacting tissue with a candidate compound; contacting the tissue with a substance which induces a biological or immunological response in said tissue in the absence of said candidate compound; and measuring a level of reduction of the biological or immunological response in said tissue, wherein a reduction of said level compared to a level in a corresponding tissue lacking said candidate compound indicates that said compound is capable of treating, preventing, inhibiting or reducing the biological or immunological response.

24. A method for screening for a stimulating agent capable of stimulating production in a tissue of a biological or immunological response-inhibiting agent, comprising contacting a tissue exhibiting a biological or immunological response, with a candidate compound; and measuring activity in said tissue of a biological or immunological response-inhibiting agent, wherein an increase of activity of said response-inhibiting agent in said tissue, compared to a level of activity of said response-inhibiting agent in a corresponding tissue lacking said candidate compound, indicates that said compound is capable of inducing said stimulating agent.

25. The method of claim 24 wherein said response-inhibiting agent is an LKKTET peptide.

26. The method of claim 25 wherein said LKKTET peptide is thymosin beta 4.

27. A method of screening for a stimulating agent capable of stimulating production of a biological or immunological response-inhibiting agent in a tissue,

comprising contacting a tissue with a candidate compound, contacting the tissue with a substance that induces a biological or immunological response in said tissue in the absence of said candidate compound; and measuring activity in said tissue of said response-inhibiting agent, wherein an increase of activity in said tissue of said response-inhibiting agent, compared to a level of said activity in a corresponding tissue lacking said candidate compound, indicates that said candidate compound is capable of stimulating production in said tissue of said response-inhibiting agent.

28. The method of claim 27 wherein said response-inhibiting agent is an LKKTET peptide.

29. The method of claim 28 wherein said LKKTET peptide is thymosin beta 4.